<u>IN THE CLAIMS:</u>

Please amend claims 5, 8, 16, 20 and 25 as follows:

1-4.   (Cancelled)

5.   (Currently amended) A method for operating an Internet telephony gateway comprising ~~the steps of~~:

accessing a call between a terminal unit for a public switched telephone network (PSTN) and a terminal unit for an Internet protocol (IP) network;

respectively monitoring states of the PSTN and the IP network through a board for the PSTN and a board for the IP network;

generating an alarm in the board for the PSTN when any failure occurs in the PSTN<u>, wherein generating the alarm comprises converting alarm data of a hard disk drive (HDD) module to first serial data, converting parallel input state data of a fan and cables to second serial data, converting the first and second serial data to parallel data, and adding the parallel data to state data of ejection, injection, and operation of boards, input in parallel from a printed board assembly (PBA)</u>;

blocking a channel between the Internet telephony gateway and the PSTN; and

terminating the call with the terminal unit for the IP network.

6.   (Previously presented) The method of claim 5, further comprising the step of providing a sound for informing the terminal unit for the IP network of termination of the call.

7.   (Previously presented) The method of claim 6, wherein said sound includes a termination message, a tone, and an announcement.

8.   (Currently amended) A method for operating an Internet telephony gateway comprising ~~the steps of~~:

accessing a call between a terminal unit for a public switched telephone network (PSTN) and a terminal unit for an Internet protocol (IP) network;

respectively monitoring states of the PSTN and the IP network through a board for the PSTN and a board for the IP network;

generating an alarm in the board for the IP network when any failure occurs in the IP network<u>, wherein generating the alarm comprises converting alarm data of a hard disk drive</u>

(HDD) module to first serial data, converting parallel input state data of a fan and cables to second serial data, converting the first and second serial data to parallel data, and adding the parallel data to state data of ejection, injection, and operation of boards, input in parallel from a printed board assembly (PBA);

blocking a channel between the Internet telephony gateway and the IP network; and

terminating the call with the terminal unit for the PSTN.

9.   (Previously presented) The method of claim 8, further comprising the step of providing a sound for informing the terminal unit for the PSTN of termination of the call.

10.   (Previously presented) The method of claim 9, wherein said sound includes a termination message, a tone, and an announcement.

11-13. (Cancelled)

14.   (Currently amended)   An Internet telephony gateway comprising:

a public switched telephone network (PSTN) interface module interfacing with a PSTN and generating a failure alarm when failure occurs in the PSTN;

an Internet protocol (IP) network interface module interfacing with an IP network and generating a failure alarm when failure occurs in the IP network;

a data processing module performing a data processing procedure required for data exchange between the PSTN and the IP network; and

a control module performing a flow that enables a corresponding subscriber to normally terminate a call through one network in which a failure alarm has not occurred, in response to the failure alarm that may occur in either the PSTN or the IP network, each of said PSTN interface module and said IP network interface module ~~including~~ comprising:

a printed board assembly (PBA) providing alarm data of the PSTN and the IP network;

a first parallel-to-serial converter converting alarm data of a hard disk drive (HDD) module to serial data;

a second parallel-to-serial converter converting parallel input state data of a fan and cables to serial data;

a serial-to-parallel converter converting the data from the first and second parallel-to-serial converters to parallel data, and adding the parallel data to state data of ejection, injection, and operation of boards, input in parallel from the PBA;

a memory storing the data output from the serial-to-parallel converter in corresponding addresses; and

a data bus buffer transmitting the state data stored in the memory to the system module so as to monitor the failure.

15.   (Currently amended)   An Internet telephony gateway comprising:

a public switched telephone network (PSTN) interface module interfacing with a PSTN and generating a failure alarm when failure occurs in the PSTN;

an Internet protocol (IP) network interface module interfacing with an IP network and generating a failure alarm when failure occurs in the IP network;

a data processing module performing a data processing procedure required for data exchange between the PSTN and the IP network; and

a control module performing a flow that enables a corresponding subscriber to normally terminate a call through one network in which a failure alarm has not occurred, in response to the failure alarm that may occur in either the PSTN or the IP network, each of said PSTN interface module and said IP network interface module including comprising:

a printed board assembly (PBA) providing alarm data of the PSTN and the IP network, wherein the failure alarm data are collected in a port scan bit (PSB) memory and in injection bit types from said PBA;

a first parallel-to-serial converter converting alarm data of a hard disk drive (HDD)   .
module to serial data;

a second parallel-to-serial converter converting parallel input state data of a fan and cables to serial data;

a serial-to-parallel converter converting the data from the first and second parallel-to-serial converters to parallel data, and adding the parallel data to state data of ejection, injection, and operation of boards, input in parallel from the PBA;

a memory storing the data output from the serial-to-parallel converter in corresponding addresses; and

a data bus buffer transmitting the state data stored in the memory to the system module so as to monitor the failure.

16.   (Currently amended) A network-based telephony method, said method comprising the steps of:

providing a plurality of call signaling channels between a public switched telephone network (PSTN) and an Internet protocol network (IPN);

managing the state of said plurality of call signaling channels between said PSTN and said IPN by way of at least one call control module;

reporting IPN call signaling channel failures to said at least one call control module, wherein reporting the call signal channel failures comprises converting alarm data of a hard disk drive (HDD) module to first serial data, converting parallel input state data of a fan and cables to second serial data, converting the first and second serial data to parallel data, and adding the parallel data to state data of ejection, injection, and operation of boards, input in parallel from a printed board assembly (PBA); and

utilizing said at least one call control module to block a corresponding failed IPN call signaling channel and terminate the call through the PSTN.

17. (Previously presented) The network-based telephony method of claim 16, further comprising the step of providing a terminal unit connected to said PSTN with an indication of the termination of the call.

18. (Previously presented) The network-based telephony method of claim 17, wherein said call termination indication includes a call termination message.

19. (Previously presented) The network-based telephony method of claim 17, wherein said call termination indication includes a tone.

20. (Currently amended) A network-based telephony method, said method comprising the steps of:

providing a plurality of call signaling channels between a public switched telephone network (PSTN) and an Internet protocol network (IPN);

managing the state of said plurality of call signaling channels between said PSTN and said IPN by way of at least one call control module;

reporting PSTN call signaling channel failures to said at least one call control module, wherein reporting call signal channel failures comprises converting alarm data of a hard disk drive (HDD) module to first serial data, converting parallel input state data of a fan and cables to second serial data, converting the first and second serial data to parallel data, and adding the

parallel data to state data of ejection, injection, and operation of boards, input in parallel from a printed board assembly (PBA); and

utilizing said at least one call control module to block a corresponding failed PSTN call signaling channel and terminate the call through the IPN.

21.   (Previously presented) The network-based telephony method of claim 20, further comprising the step of providing a terminal unit connected to said IPN with an indication of the termination of the call.

22.   (Previously presented) The network-based telephony method of claim 21, wherein said call termination indication includes a call termination message.

23.   (Previously presented) The network-based telephony method of claim 21, wherein said call termination indication includes a tone.

24.   (Previously presented) The network-based telephony method of claim 21, wherein said call termination indication includes an announcement.

25.   (Currently amended) A network-based telephony gateway comprising:

at least one call control module;

at least one public switched telephone network (PSTN) interface operatively coupled between said at least one control module and at least one PSTN;

at least one Internet protocol network (IPN) interface operatively coupled between said at least one control module and at least one IPN; and

means for exchanging data between said at least one PSTN interface and said at least one IPN interface,

said at least one call control module managing the state of call signaling channels between said at least one PSTN and said at least one IPN,

said at least one PSTN interface adapted to report PSTN call signaling channel failures to said at least one call control module,

said at least one IPN interface adapted to report IPN call signaling channel failures to said at least one call control module,

said at least one call control module adapted to block a corresponding failed PSTN call signaling channel and terminate the call through said at least one IPN,

said at least one call control module further adapted to block a corresponding failed IPN call signaling channel and terminate the call through said at least one PSTN,

and wherein the at least one PSTN interface and the at least one IPN interface comprise a printed board assembly (PBA) providing alarm data of the at least one PSTN and the at least one IPN, a first parallel-to-serial converter converting alarm data of a hard disk drive (HDD) module to serial data, a second parallel-to-serial converter converting parallel input state data of a fan and cables to serial data, and a serial-to-parallel converter converting the data from the first and second parallel-to-serial converters to parallel data, and adding the parallel data to state data of ejection, injection, and operation of boards, input in parallel from the PBA.

26.   (Previously presented) The network-based telephony gateway of claim 25, wherein said at least one call control module comprises a call maintenance module and a call processing module, said call maintenance module adapted to provide call signaling channel maintenance data to said call processing module, said call processing module adapted to periodically update the state of call signaling channels between said at least one PSTN and said at least one IPN according to call signaling channel maintenance data received from said call maintenance module.

27.   (Previously presented) The network-based telephony gateway of claim 26, wherein the state of call signaling channels includes an "idle" state, a "conversation busy" state, a "block" state, and a "not-assign" state.